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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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TAYLOR RUSSELL & RUSSELL, P.C.
4807 SPICEWOOD SPRINGS ROAD
BUILDING TWO SUITE 250
AUSTIN, TX 78759

EXAMINER	
HWANG, JOON H	

ART UNIT	PAPER NUMBER
2166	

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/618,840	RIPLEY ET AL.	
	Examiner	Art Unit	
	Joon H. Hwang	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/6/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The claims 1-52 are pending.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

3. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

4. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-52 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-33 of U.S. Patent No. 6,829,606. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are substantially similar in scope and they use the same limitations, using varying terminology. See further explanation below. Differences are bolded and omissions are underlined in following comparison tables.

Application Claim 1	US Patent Claim 1
1. A method for performing similarity searching by remote scoring and aggregating, comprising the steps of: receiving a request **by a similarity search server** from one or more clients for initiating a similarity search, the request designating an anchor document and at least one search document; generating one or more **SQL commands** from the client request; **sending the SQL commands from the similarity search server to one or more remote database management systems**; executing the **SQL commands in the database management systems** to determine normalized document similarity scores **using user defined functions**; **returning document similarity scores to the similarity search server from the one or more database management systems**; and constructing a search result and sending the search result to the one or more clients.	1. A method for performing similarity searching, comprising the steps of: receiving a request instruction from a client for initiating a similarity search; generating one or more **query commands** from the request instruction, each query command designating an anchor document and at least one search document; executing each **query command**, including: computing a normalized document similarity score <u>having a value of between 0.00 and 1.00 for each search document in each query command for indicating a degree of similarity between the anchor document and each search document</u>; creating a result dataset containing the computed normalized document similarity scores for each search document; and sending a response including the result dataset to the client.

Table 1

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cited steps as indicated claim 1 of the US Patent

since the omission and addition of the cited limitations would have not changed the process of performing similarity searching. Such modification would not interfere with the functionality of the remaining elements. In re Karlson, 136 USPQ 184 (CCPA 1963).

The dependent claims 2-23 of the instant application are rejected for fully incorporating the errors of their respective base claims by dependency.

Application Claim 24	US Patent Claim 20
24. A system for performing similarity searching by remote scoring and aggregating, comprising: **means for** receiving a request by **a similarity search server** from one or more clients for initiating a similarity search, the request designating an anchor document and at least one search document; means for generating one or more **SQL commands** from the client request; **means for sending the SQL commands from the similarity search server to one or more remote database management systems;** means for executing the **SQL commands** in the database management systems to determine normalized document similarity scores **using user defined functions**; **means for returning document similarity scores to the similarity search server from the one or more database management systems**; and means for constructing a search result and sending the search result to the one or more clients.	20. A system for performing similarity searching, comprising: **a gateway** for receiving a request instruction from a client for initiating a similarity search; **the gateway** for generating one or more **query commands** from the request instruction, each query command designating an anchor document and at least one search document; a search manager for executing each **query command**, including: means for computing a normalized document similarity score having a value of between 0.00 and 1.00 for each search document in each query command for indicating a degree of similarity between the anchor document and each search document; means for creating a result dataset containing the computed normalized document similarity scores for each search document; and the gateway for sending a response including the result dataset to the client.

Table 2

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cited steps as indicated claim 1 of the US Patent since the omission and addition of the cited limitations would have not changed the process of performing similarity searching. Such modification would not interfere with

the functionality of the remaining elements. In re Karlson, 136 USPQ 184 (CCPA 1963).

The dependent claims 25-49 of the instant application are rejected for fully incorporating the errors of their respective base claims by dependency.

Application Claim 50	US Patent Claim 20
50. A system for performing similarity searching by remote scoring and aggregating, comprising: one or more clients communicating with a **similarity search server** for requesting a similarity search between an anchor document and at least one search document; **the similarity search server** processing the similarity search request and constructing one or more **SQL commands** from the similarity search request; **the similarity search server communicating with one or more database management systems for transmitting the one or more SQL commands**; **the one or more database management systems** executing the **SQL commands** to obtain a similarity search result between the anchor document and the at least one search document; **the one or more database management systems communicating with the similarity search server for transmitting the search result;** and the similarity **search server** processing the similarity search result and communicating with the one or more clients for transmitting a similarity search response to the one or more clients.	20. A system for performing similarity searching, comprising: **a gateway** for receiving a request instruction from a client for initiating a similarity search; **the gateway** for generating one or more **query commands** from the request instruction, each **query command** designating an anchor document and at least one search document; a search manager for executing each **query command**, including: means for computing a normalized document similarity score having a value of between 0.00 and 1.00 for each search document in each query command for indicating a degree of similarity between the anchor document and each search document; means for creating a result dataset containing the computed normalized document similarity scores for each search document; and **the gateway** for sending a response including the result dataset to the client.

Table 3

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cited steps as indicated claim 1 of the US Patent since the omission and addition of the cited limitations would have not changed the process of performing similarity searching. Such modification would not interfere with

the functionality of the remaining elements. In re Karlson, 136 USPQ 184 (CCPA 1963).

The dependent claims 51-52 of the instant application are rejected for fully incorporating the errors of their respective base claims by dependency.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 7-11, 21-35, 37, and 46-52 are rejected under 35 U.S.C. 102(e) as being anticipated by Wheeler et al. (U.S. Patent No. 6,738,759).

8. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respect to claim 1, Wheeler teaches receiving a request by a similarity search server from one or more clients for initiating a similarity search, the request

designating an anchor document and at least one search document (fig. 1, fig. 4A, fig. 7, fig. 9, fig. 25, line 56 in col. 6 thru line 25 in col. 7, and lines 38-49 in col. 22). Wheeler teaches generating one or more SQL commands from the client request (i.e., a relational database query, line 56 in col. 6 thru line 25 in col. 7). Wheeler teaches sending the SQL commands from the similarity search server to one or more remote database management systems (fig. 1, fig. 4A, fig. 7, fig. 9, fig. 25, line 56 in col. 6 thru line 25 in col. 7, and lines 38-49 in col. 22). Wheeler teaches executing the SQL commands in the database management systems to determine normalized document similarity scores using user defined functions (fig. 4A, fig. 21G, fig. 21M, fig. 25, lines 31-45 in col. 3, lines 25-42 in col. 13, and lines 53-60 in col. 18). Wheeler teaches returning document similarity scores to the similarity search server from the one or more database management systems (fig. 1, fig. 4A, fig. 7, fig. 9, fig. 25, line 56 in col. 6 thru line 25 in col. 7, and lines 38-49 in col. 22). Wheeler teaches constructing a search result and sending the search result to the one or more clients (fig. 1, fig. 4A, fig. 7, fig. 9, fig. 25, line 56 in col. 6 thru line 25 in col. 7, and lines 38-49 in col. 22).

With respect to claim 2, Wheeler teaches generating one or more query commands for identifying a schema document for defining structure of search terms, mapping of datasets providing target search values to relational database locations, and designating measure, choice and weight algorithms to be used in a similarity search computation (fig. 2 and fig. 4A).

With respect to claim 3, Wheeler teaches using user defined functions contained within libraries of the database management systems for implementing measure

algorithms to determine attribute similarity scores, weighting functions and the choice algorithms for determining normalized document similarity scores, the document similarity scores being returned to the similarity search server (fig. 2, fig. 4A, fig. 21G, fig. 21M, fig. 25, lines 31-45 in col. 3, lines 25-42 in col. 13, and lines 53-60 in col. 18).

With respect to claim 7, Wheeler teaches structuring the normalized similarity scores by imposing restrictions on the similarity scores according to a designated user defined function and returning restricted results to the similarity search server (fig. 10 and lines 5-20 in col. 12).

With respect to claim 8, Wheeler teaches imposing restrictions is selected from the group consisting of defining a range of similarity scores to be selected and defining a range of percentiles of similarity scores to be selected (lines 42-60 in col. 18).

With respect to claim 9, Wheeler teaches sorting the normalized similarity scores according to a designated user defined function and returning sorted results to the similarity search server (lines 7-12 in col. 14).

With respect to claim 10, Wheeler teaches grouping the normalized similarity scores according to a designated user defined function and returning grouped results to the similarity search server (lines 36-59 in col. 14).

With respect to claim 11, Wheeler teaches executing statistics commands according to a designated user defined function and returning statistic results to the similarity search server (fig. 25).

With respect to claim 21, Wheeler teaches selecting user defined functions for measure algorithms from the group consisting of name equivalents, foreign name

equivalents, textual, sound coding, string difference, numeric, numbered difference, ranges, numeric combinations, range combinations, fuzzy, date oriented, date to range, date difference, and date combination (line 48 in col. 12 thru line 8 in col. 13).

With respect to claim 22, Wheeler teaches selecting user defined functions for choice algorithms from the group consisting of single best, greedy sum, overall sum, greedy minimum, overall minimum, and overall maximum (lines 52-57 in col. 4).

The limitations of claims 23, 24 and 50 are rejected in the analysis of claim 1 above, and these claims are rejected on that basis.

With respect to claim 25, Wheeler teaches a gateway connected to a client network, the gateway also connecting to a search manager and a virtual document manager (figs. 7-9).

With respect to claim 26, Wheeler teaches a search manager connected between a gateway and a database network interface (figs. 1 and 5-9).

With respect to claim 27, Wheeler teaches a database network interface connected to a database network, the database network connecting to the database management systems (figs. 1 and 5-9).

With respect to claim 28, Wheeler teaches the database management systems, the database management systems including a library of user defined functions (fig. 1, fig. 2, fig. 4A, figs. 5-9, fig. 21G, fig. 21M, fig. 25, lines 31-45 in col. 3, lines 25-42 in col. 13, and lines 53-60 in col. 18).

With respect to claim 29, Wheeler teaches the database management systems connected to a database network, the database network connecting to a database

network interface of the similarity search server (fig. 1, fig. 2, fig. 4A, figs. 5-9, fig. 21G, fig. 21M, fig. 25, lines 31-45 in col. 3, lines 25-42 in col. 13, and lines 53-60 in col. 18).

With respect to claim 30, Wheeler teaches a search manager and a virtual document manager within the similarity search server (figs. 1 and 5-9).

With respect to claim 31, Wheeler teaches a gateway connected to a search manager and a virtual document manager within the similarity search server, the gateway connecting to the one or more clients via a client network (figs. 1 and 5-9).

The limitations of claim 32 are rejected in the analysis of claim 3 above, and the claim is rejected on that basis.

The limitations of claim 33 are rejected in the analysis of claim 7 above, and the claim is rejected on that basis.

The limitations of claim 34 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

The limitations of claim 35 are rejected in the analysis of claim 11 above, and the claim is rejected on that basis.

The limitations of claim 37 are rejected in the analysis of claim 2 above, and the claim is rejected on that basis.

The limitations of claim 46 are rejected in the analysis of claim 21 above, and the claim is rejected on that basis.

The limitations of claim 47 are rejected in the analysis of claim 22 above, and the claim is rejected on that basis.

With respect to claim 48, Wheeler teaches the means for receiving a request by a similarity search server from one or more clients is via a secure client network connection and the means for sending the search result to the one or more clients is via a secure client network connection (figs. 1 and 5-9).

With respect to claim 49, Wheeler teaches the means for sending the SQL commands from the similarity search server to one or more remote database management systems is via a secure database network connection and the means for returning document similarity scores to the similarity search server from the one or more database management systems is via a secure database network connection (figs. 1 and 5-9).

With respect to claim 51, Wheeler teaches a secure client network connection for transmitting a similarity search request and similarity search response between the one or more clients and the similarity search server (figs. 1 and 5-9).

With respect to claim 52, Wheeler teaches a secure database network connection for transmitting the one or more SQL commands and the search results between the one or more database management systems and the similarity search server (figs. 1 and 5-9).

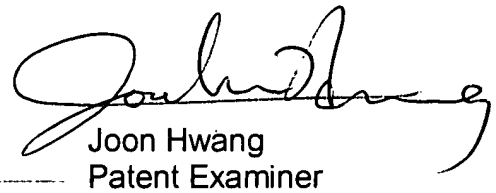
Allowable Subject Matter

9. Claims 4-6, 12-20, 36, 38-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as well as a terminal disclaimer.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joon Hwang
Patent Examiner
Technology Center 2100

3/17/06